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ABSTRACT

Environment may be regarded as a form of communication, with environmental linguistics becoming a new discipline that will have to be explored. Its goal is to demystify some of the constructs that contribute to the built environment as a communication tool. Treating the built environment as a language requires a recognition of its dynamic nature. One of the problems in this area is the lack of consistency in terminology across the disciplines that have addressed the area so far. Envisioning the environment in terms of language opens up possibilities in addressing these problems through interdisciplinary dialog. Communication factors in shopping malls were explored as an example of the approach, using the responses of 64 college students from a visual communications course to a series of slides of 23 scenes from shopping malls. Preference, price, likelihood to shop, and describability were all ranked. The exploratory results indicate that it may be possible to design commercial space that communicates the merchant's intended image. It is time to learn the language of environment and promote spatial literacy. Two tables summarize study findings. (Contains 36 references.) (SLD)

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ED 363 302

Environmental Linguistics: A Typology of Visual Factors in Shopping Malls

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by
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Environmental communication research can be difficult to interpret and assimilate because of the tremendous diversity of research approaches and variety of disciplines that are involved. This research takes many forms, and there is often very little similarity in jargon, motives and methods across disciplines. Lewis (1979) refers to a particularly important perspective on understanding environment. Landscape is seen as text to be read (Lewis 1979). This perspective raises an important issue. If we are to read landscapes, then we must be able to understand or define the terms. The grammar of environmental language must be opened up for the enlightenment and enjoyment of all, if environmental design is to rise above the level of superficial discussion of aesthetics. The call is open for understanding of environmental linguistics.

Research from several fields is relevant to explorations of environment as a form of communication. Design research has focused on aesthetic values and form. Psychologists have focused on human responses to the environment, and environmental cognition. Marketing research has focused on identifying factors that contribute to spatial images that increase the likelihood that shoppers will make a purchase (Bitner 1992; Snyder 1989). Another major area of research concerns body language, territoriality and personal space (Malandro, Barker and Barker 1989). This line of research suggests that communication occurs at many levels other than verbal. Social geographers such as Harvey (1985) and Soja (1989) have suggested that space can express the values of the current social order. From these diverse research backgrounds, there emerges a confusion of methods, and jargon that can be difficult to decipher.

Interdisciplinary diversity can offer opportunities for a variety of research approaches, but can also become an obstacle to the exchange of information between disciplines. There are many elements that can be drawn from diverse fields of research to form the basis for a new environmental research discipline. This paper will explore some requisite philosophical underpinnings, and sample possible research within this new discipline, that will be referred to as **environmental linguistics**.

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Environmental Linguistics

Environmental linguistics draws from much of the research that we have come to recognize as being relevant to environmental psychology, blended with theories of design, marketing, communications and other social science disciplines. Current environmental behavior research has been difficult to apply in the built environment because it is based in vague terms. Complexity, coherence, legibility and mystery have been identified as constructs that are relevant to human understanding of space (Kaplan & Kaplan, 1982). Line, texture, form harmony, balance, and a host of other principles have been identified as environmental factors that contribute to our enjoyment and understanding of the world around us. The goal of environmental linguistics is to demystify some of these constructs.

Theories that seek to explain the environment have a natural tendency to be holistic. This often leads to problems with construct deffinition. Environmental constructs are often intangible and charged with emotional interpretation. The concept of mystery, as an example, has very personal and specific meanings to various individuals. The objective of environmental linguistics is to create a forum for theoretical exploration of the built environment as a communication tool, that preserves a holistic perspective, but avoids ill-defined constructs.

Built Environment as Language

Metaphor is an excellent way to communicate complex meaning (Stern 1990). The carefully guided images of the poet can take us back in time to environments and cities of old (Blanchard 1985). The simple smell of jasmine in the springtime air can take us back to experiences of our youth. With this concept as a point of embarkment, the following discussion should take you, through metaphor, to an image of environmental linguistics

The built environment is like a language. It communicates the intentions and values of the builder. The similarities do not stop there, however Verbal communication is filled with uncertainty and change, but it has a formalized system (de Saussure 1959) for maintaining consistency, that allows us to communicate. The written word provides a durable record of thought. We formalize language through the use of dictionaries and grammatical rules. These form standards that help maintain consistency of Language, but change still permeates language. Language evolves over time (Arlotto 1972; Lyons 1981). Over use of emotion-charged words results in diminished values and meaning. The word "super" is now so common that we use it to refer to anything from grocery stores to weekly discount carpet sales. The word "awesome" is becoming trite. As language evolves and meanings change, we loose touch with past significance.

This process is similar to the evolution of the built environment. The social significance of space changes with new experiences and relationships within the relevant spatial environment. Although the existence of the built environment provides a durable record of ideas and values that led to its creation, there are no dictionaries or grammati-

cal texts to preserve spatial meaning across generations. As a result, the changes in environmental meaning occur at a much faster rate.

An example of rapidly changing spatial language can be seen in eastern Europe. The spatial symbolism of the communist party has been quickly dismantled. The icons of a displaced government are quickly replaced by those of the new ruling order. New meanings and new environmental symbols will need to be generated for the new social order that is being generated in eastern European governments. It is likely that many outward expressions of the old social order will remain, but the significance may change or be lost.

The concept of styles and fads demonstrate the rapid change of environmental language. Trends and fads are constantly found in the design of space. This does not preclude the existence of more consistent environmental language, but the picture of environment that is constant and unchanging is simply not viable. Treating the built environment as a language requires a recognition of its dynamic nature.

What do Various Disciplines Have to Offer?

It is clear that meanings are conveyed to individuals from environmental experience (Kaplan and Kaplan 1982; Rapoport 1982; Meinig 1979a) and that these meanings influence the behavior of consumers (Bitner 1992). Sommer (1969) warns of problems created by environmental designers that fail to consider social ramifications of spatial design. It is evident that environmental and spatial needs (Sommer 1969; Kaplan and Kaplan 1982; Rapoport 1982) and opportunities to influence behavior through design modification exist (Whyte 1980; Kaufmann 1990). Unfortunately, little within these principles is found to address the "How to?" questions relevant to spatial design. An exploration of some difficulties with existing research is in order.

A serious problem in many research efforts is the reliance on constructs that are ill-defined. Several constructs, such as mystery, complexity, legibility and coherence, have been linked to environmental perception (Kaplan and Kaplan 1982). These constructs are useful in explaining individual preference for one space over another, yet it remains difficult and unclear how to incorporate qualities into the design of space that will consistently elicit positive preference responses.

Marketing research has pursued a different approach to this kind of research. Much of marketing draws on the concept of image (Darden & Ashton 1974; Cardozo 1974; Bitner 1992). Image in this case refers to the general conceptualization or schema that an individual possesses relative to a particular store (See Boulding 1956 for a discussion of image). The ability to convey appropriate messages about a store through a sound marketing plan is essential to a store's success. This is likely to be true for the design of exterior commercial space, since business place forms a vital component of a marketing plan. Unfortunately, it can often be more difficult to renovate a failed or outdated place than it is to change marketing concepts. The difficulty with this research is that it is generally

focused on the marketing of the business within commercial space as opposed to making market supportive space.

Cognitive psychology has contributed a great deal to the understanding of environmental meaning. Network theory (Best 1989) has extensive application to the design of place. This theory essentially states that memories are encoded in a network-like system. As we are exposed to experiences, or stimuli, a network is activated that will bring other memories to the surface. This helps explain how an odor can remind us of youthful memories. It helps explain how the poets words can evoke stronger images often than real environments and experiences. The human focus of this research can become an obstacle to application of the results to spatial design. Often the objective of the research is found in a desire to understand humanity rather than its interaction with environment.

Sommer (1969), Hall (1969) and Ashcraft (1976) have explored the domain of personal space. This concept is vital to the development of appropriate public space (Mehrabian 1976). Their research demonstrates that environmental issues have real effects on human existence. This does not require acceptance of the deterministic view of environment that once was popular in the field of design. Appropriate spatial designs may be necessary for specific social functions to occur, but appropriate design is not likely to assure optimal behavior.

Spaces that are designed for social interactions are important. The improvement of social experience that is obtained through social contact need to be fostered, but this can only be achieved through consistent understanding of the language of space. Is it enough to say that people need space that facilitates social functions? Is it even enough to create space that is more user friendly. The design of space must speak to us in a more significant way than this.

A problem that has become increasingly apparent is the lack of consistency in terminology across disciplines. The meaning of space to a geographer can be very different than to an economist or an architect. These differences in approaches accentuate the need for careful integration of research between disciplines. Envisioning the environment in terms of language opens up possibilities of how to address these problems through interdisciplinary dialog.

An Exploration of Communication Factors in Shopping Malls

The American Shopping "Landscape" has come to characterize many of our societal values today. The center of power has moved to the mall. Communities such as Brea, California have gone so far as to move city hall to sites adjacent to the mall. Shopping and associated social experiences have become the focus of social interaction outside the home (Kowinski 1978). This shift in community identity and makeup has reduced the importance of old community patterns. In many rural and inner city settings, community commercial patterns have been dramatically altered (Woods 1990). Underdeveloped communities in inner cities and rural areas need to have the access to understanding of environmental lan-

guage in order to compete against larger commercial areas in regional population centers.

One of the areas that is often a concern in the design of commercial space is that store space should enhance the customer's image of the store pricing policy. Discount store operators want to convey the message that prices are low. For this reason, the issue of price was selected as the focus of an exploratory survey.

A group of 64 students from a visual communications course were divided randomly into two groups. They were asked one of two sets of questions. Both groups were asked to view a series of 23 scenes from shopping centers in the southeastern US. These were presented as slides for 30 seconds, followed by a blank slide that allowed time to answer survey questions. The first three scenes were selected to show a broad range of types and were omitted from the evaluation as practice slides.

The scenes were evaluated by three design professionals to include a range of architectural styles and spatial arrangements. The intent was to have a broad range of spatial characteristics, but to offer some repetition. Slides were then randomized, and presented to both groups at the same time (For a review of the validity of slides as a representation of physical environments, see Shuttleworth 1980).

Group one was asked to evaluate each scene and enter a stapel scale rating (For an evaluation of the stapel scale rating method see Hawkins 1975) of what they would expect pricing policy to be in the stores in the scene. Group two was asked to enter their preference for each scene (For a review of this approach see Kaplan R. 1979 & 1985; Kaplan S. 1979). Both groups were then asked to rate the likelihood that they would choose to shop in a commercial area like the one shown. In addition, participants were asked to list several words describing the stores in the shopping center, and to list names of stores they might expect to find there. The number of descriptive words and expected stores were combined and used as an indication of the describability of a scene. Mean scores were computed for expected price, preference, likelihood to shop and the number of descriptive words that participants were able to list for each scene. A summary of the findings from the statistical analysis is found in Table 1.

A qualitative analysis was performed by placing the scenes in rank order according to preference, price, likelihood to shop and describability. The scenes were then evaluated visually to identify factors that could explain the rating of each scene. An evaluation of descriptive words listed by participants was also used to identify additional factors. These factors are listed in Table 2.

Table 1: Summary of Correlation Analysis Results

Relationship	Correlation Coefficient
Preference is related to likelihood to shop.	*0.9021*
Preference is not strongly related to perceived price.	*0.3846*
Preference is unrelated to describability.	*0.1186*
Price is not strongly related to likelihood to shop.	*-0.3387*
Price is not related to describability.	*0.1320*

Note: Conclusions are based on a correlational analysis of mean ratings for each variable.

Table 2: Factors That May Influence Preference, and Expected Price.

Spatial Articulation: *Three dimensional articulation of building facades may increase preference and expected price.*
Color: *Warm colors and rich colors may increase preference and expected price.*
Planting: *Increased use of plant material may increase preference and expected price.*
Building Materials: *Rich building materials such as brick and stone may increase preference and expected price.*
Positive Store Reputation: *Positive experience with a store or chain may increase preference.*
Regional Mall Similarity: *The perception of large size and regional appeal may increase preference and expected price.*
Age: *Newness may increase preference and expected price.*
Light Standards: *Presence of large, highway style light fixtures may reduce preference and expected price.*

Note: These factors are predicted to contribute to preference and expected price ratings, based on a qualitative analysis of the scenes and comments made by survey participants.

Discussion of Findings

Because of the exploratory nature of this study, it is somewhat difficult to be certain of the confidence of these findings. Problems that could affect the validity of the results include order effects, and the external influence that may have been created through participant recognition of stores from signage. At least some of the reaction may have been due to their familiarity with the individual businesses shown. There was also a clear fatigue factor that seemed to enter into ratings after about scene 15.

In view of these considerations, it does seem clear that in the absence of experience with service and pricing policies of stores in a shopping center, individuals will shop in places that they like. The lack of a strong correlation between expected price and preference would also indicate that attractive shopping areas can be designed that will still be of interest to bargain conscious shoppers.

The qualitative analysis also indicates that environmental variables, such as those listed in Table 2, should be explored to discover what messages are sent by their inclusion in designed space. The issues of spatial articulation and color, for example, seemed to stand out as clear indicators of preference for the scenes. Color and age may also have a relationship to the price message. If these variables are linked to explicit perceptions of store characteristics, it may be possible to design commercial space that conveys the merchant's intended image.

Conclusions

Design research must move toward an approach to understanding space that enables us to be more deliberate in the design of space that is rich in meaning. This will require the reevaluation of space in terms of its communicative properties. Knowledge gained in related disciplines must be integrated to increase the range of research perspectives.

Designers need to be more aware of the implications of their design on social patterns. The built environment speaks to the users of space. This speach can be meaningful or banal, eloquent or crude. It is time that we learn to speak the language of environment, and promote spatial literacy.

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